Does treatment with gonadotropin releasing Hormone (GnRH) analogues affect BMI in children with precocious or early puberty?

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OBJECTIVES AND METHODS

OBJECTIVES: To assess the change in body mass index (BMI) in children treated with GnRH analogues within a UK endocrine service and to analyse the patient/parent experience of the treatment

METHODS: A retrospective study along with a questionnaire survey of patient/parent experience of the treatment was conducted. Data were collected from patients with precocious puberty on GnRH analogues for at least two years. Baseline BMI was compared with BMI at 2-years post treatment. An anonymised questionnaire survey assessed patients’ experience of treatment, associated side effects and overall satisfaction of the services

RESULTS

- 10% of children (n=2) were obese (BMI SDS +2 to +3) prior to treatment, while 21% were obese at 2 years of treatment (n=4).
- BMI SDS showed an increasing trend (0.78 to 0.91) but this was not statistically significant (p=0.379).
- 92% of patients were either satisfied or very satisfied with the service.
- 70% of patients did not report any side effects (n=14).
- 30% (n=8) of patients perceived weight gain.

CONCLUSIONS

- In our study population there was an increase in incidence of obesity in children on GnRH analogues over a two year period.
- However, there was no statistically significant change in the BMI SDS of study population both during treatment and after stopping therapy. This is in agreement with the recent consensus statement(2009)¹.

REFERENCES
